

App. Serial No. 10/527,946  
Docket No.: NL 020846 US

**In the Claims:**

Please amend claim 3 as indicated below. This listing of claims replaces all prior versions.

1. *(Previously presented)* For generating a quadrature periodical output signal adjustable to frequencies in a relative wide range, a voltage controlled oscillator comprising a LC tank circuit coupled to a modulator means for controlling an oscillation frequency of the LC tank circuit in response to a control signal and coupled to an amplifier means via an adder, the adder providing feedback to the LC tank circuit.
2. *(Previously presented)* An oscillator as claimed in claim 1, wherein the modulator means comprises a series coupling of a buffer and a modulator.
3. *(Currently amended)* An oscillator as claimed in claim 1, wherein the amplifier means comprise a series coupling of ~~an another~~ a buffer and an amplifier.
4. *(Previously presented)* An oscillator as claimed in claim 3, wherein the amplifier is a transconductance amplifier.
5. *(Previously presented)* An oscillator as claimed in claim 1, wherein the amplifier means is a transconductance amplifier, the modulator means is a Gilbert cell modulator and the adder is a node.
6. *(Previously presented)* A phase locked loop comprising an oscillator as claimed in claim 1 for use in a large tuning TV tuner.
7. *(Previously presented)* For use with an LC-type tank circuit having an inductive current path and a capacitive current path, a method for generating a quadrature periodical output signal adjustable to frequencies in a relative wide range, the method comprising:

App. Serial No. 10/527,946  
Docket No.: NL 020846 US

from a first high-impedance node, generating a first buffered signal indicative of a level of current through the inductive path of the LC-type tank circuit;

from a second high-impedance node, generating a second buffered signal indicative of a level of current through the capacitive path of the LC-type tank circuit;

in response to a control signal, quadrature modulating the first buffered signal and producing a modulated signal therefrom;

amplifying the second buffered signal and producing an amplified signal therefrom; and

adding the modulated signal and the amplified signal and, in response thereto, providing a feedback signal to the LC tank circuit.

8. *(Previously presented)* The method of claim 7, wherein the step of amplifying uses a transconductance amplifier.

9. *(Previously presented)* The method of claim 7, further including the step of using a phase-locked-loop circuit to control the periodic output signal.

10. *(Previously presented)* The method of claim 9, wherein the periodic output signal is used in a TV tuner.

11. *(Previously presented)* For use with an LC-type tank circuit having an inductive current path and a capacitive current path, an arrangement for generating a quadrature periodical output signal adjustable to frequencies in a relative wide range, the arrangement comprising:

first high-impedance node means for generating a first buffered signal indicative of a level of current through the inductive path of the LC-type tank circuit;

second high-impedance node means for generating a second buffered signal indicative of a level of current through the capacitive path of the LC-type tank circuit;

means, responsive to a control signal, for quadrature modulating the first buffered signal and producing a modulated signal therefrom;

App. Serial No. 10/527,946  
Docket No.: NL 020846 US

means for amplifying the second buffered signal and producing an amplified signal therefrom; and

means for adding the modulated signal and the amplified signal and, in response thereto, providing a feedback signal to the LC tank circuit.

12. *(Previously presented)* For use with an LC-type tank circuit having an inductive current path and a capacitive current path, an arrangement for generating a quadrature periodical output signal adjustable to frequencies in a relative wide range, the arrangement comprising:

first high-impedance node circuit to generate a first buffered signal indicative of a level of current through the inductive path of the LC-type tank circuit;

second high-impedance node circuit to generate a second buffered signal indicative of a level of current through the capacitive path of the LC-type tank circuit;

a quadrature modulator to, in response to a control signal, quadrature modulate the first buffered signal and produce a modulated signal therefrom;

an amplifier to amplify the second buffered signal, thereby producing an amplified signal; and

a circuit to add the modulated signal and the amplified signal and, in response thereto, and to provide a feedback signal to the LC tank circuit.

13. *(Previously presented)* The arrangement of claim 12, wherein the amplifier is a transconductance amplifier.

14. *(Previously presented)* The arrangement of claim 12, further including a phase-locked-loop circuit to control the periodic output signal.

15. *(Previously presented)* The arrangement of claim 14, further including a TV tuner to facilitate tuning.